													Sheet _1	of	9	
FORM P	149		U.S	s. D	EP	AR	ГМЕ	NT OF 9	MMERCE	Y. DOCKET N	10.	SERIAL NO.				
(Rev. 2-32) PATENT AND TR							ANE) TF	RADEMARI 82		1		08/451,035			
		ORI ATE							RE _	1996	ARE ICANT Nag	anathasa	strigal F	Ramanat	han	
(Use several sheets if necessary) FILING DATE											GROUP					
											May 25, 1995	95 2414				
									U.S. P	ATENT	DOCUMENTS					
EXAMINER INITIAL			DOCUMENT NUMBER						DATE		NAME	CLASS	SUBCLASS	FILING DATE		
	-															
		H			┢								-			
															-	
		\vdash		-	┢	┢	-	\vdash	-					\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		
														四 到 市		
					-			H		<u> </u>				£	1 5	
														. 0	70.	
												F				
								F	OREIGN	PATE	NT DOCUMEN	TS		Ċ	· 5	
														LATION		
			DOCUMENT NUMBER				IMBI	ER	DATE		COUNTRY	CLASS	SUBCLASS	YES	NO	
											•					
		H				\vdash										
		H		_	-		┢	_								
						<u> </u>	<u> </u>									
	ОТН	ER	D	00	CU	ME	EN'	TS	(Includi	ng Auti	nor, Title, Date	, Pertine	nt Pages	, Etc.)		
VXH			1))	Le	e I	w.	Go	ldman, N	1.S. and	d J. Brian Fow	vlkes, Ph	ı.D., "Me	dical (CT and	
			υ:	ltr	cas	oui	nd:		Current	Techno:	logy and Appli	cations'	, Publis	hed for	r	
			Aı	mei	ric	an	As	sso	ciation	of Phy	sicists in Med	dicine, 1	Published	by Ad	vanced	
			М	ed:	ica	1	Pul	oli	shing,	ISBN: 1	-883526-03-5,	1995				
		П														
																
EXAMI	NER		DATE CONSIDERED													
		HI	E	V	V	0						15/27/96	,			
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609											-P 609·					



Sheet 2 of 9 ATTY. DOCKET NO. SERIAL NO. U.S. DEPARTMENT OF COMMERCE FORM PTO-1449 (Rev. 2-32) PATENT AND TRADEMARK OFFICE 08/451,035 APPLICANT Naganathasastrigal Ramanathan INFORMATION DISCLOSURE STATEMENT BY APPLICANT FILING DATE GROUP (Use several sheets if necessary) May 25, 1995 2414 **U.S. PATENT DOCUMENTS EXAMINER** FILING DATE INITIAL DOCUMENT NUMBER DATE NAME CLASS SUBCLASS IF APPROPRIATE **FOREIGN PATENT DOCUMENTS** TRANSLATION DOCUMENT NUMBER DATE SUBCLASS COUNTRY CLASS YES. OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Lopez, H., et al., "Methods For Measuring Performance of NXH 6 Pulse-Echo Ultrasound Equipment-Part II: Digital Methods (Stage 1)", Laurel, M.D., American Institute of Ultrasound in Medicine, (AIUM Approved 11/15/94) in press DATE CONSIDERED **EXAMINER** HIEN VO 05/27/96



Sheet 3 of 9 ATTY. DOCKET NO. SERIAL NO. **FORM PTO-1449** U.S. DEPARTMENT OF COMMERCE (Rev. 2-32) PATENT AND TRADEMARK OFFICE 08/451,035 APPLICANT Naganathasastrigal Ramanathan INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) **FILING DATE GROUP** May 25, 1995 2414 **U.S. PATENT DOCUMENTS EXAMINER** FILING DATE DOCUMENT NUMBER DATE SUBCLASS IF APPROPRIATE INITIAL NAME CLASS **FOREIGN PATENT DOCUMENTS** TRANSPATION, COUNTRY CLASS SUBCLASS YES DOCUMENT NUMBER DATE -NO 53 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Madsen, E., et al., "Quality Assurance Manual for Gray Scale VXH Ultrasound Scanners" (Stage 2), Laurel MD, American Institute of Ultrasound In Medicine, (AIUM Approved 3/2/95) in press NXH (1994), "The Ultrasound QA Cookbook", Middleton, WI, Gammex RMI. 4) Gammex RMI **DATE CONSIDERED EXAMINER** VO HIEN 05 127/96



Sheet <u>4</u> of <u>9</u> U.S. DEPARTMENT OF COMMERCE **FORM PTO-1449** ATTY. DOCKET NO. SERIAL NO. (Rev. 2-32) PATENT AND TRADEMARK OFFICE 08/451,035 APPLICANT Naganathasastrigal Ramanathan INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) **FILING DATE GROUP** May 25, 1995 2414 **U.S. PATENT DOCUMENTS** FILING DATE **EXAMINER** CLASS SUBCLASS IF APPROPRIATE DOCUMENT NUMBER DATE NAME INITIAL **FOREIGN PATENT DOCUMENTS** TRANSLATION **DOCUMENT NUMBER** COUNTRY CLASS SUBCLASS YES 1 DATE OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) U XIH 5) Esko Alasaarela and John Koivukangas, "Evaluation of Image Quality in Ultrasound Scanners in Medical Diagnostics", Journal of Ultrasound in Medicine, Vol. 9, Page 23-34, 1990. **DATE CONSIDERED EXAMINER** VO 05/27/96 HIEN



										Sneet <u> </u>					
FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 2-32) PATENT AND TRADEMARK OFFICE										ATTY. DOCKET NO. SERIAL NO).		
(•									08/451,035					
			IATIC IENT							APPLICANT Naganathasastrigal Ramanathan					
	(Use	e sev	eral	she	ets if	ne	cess	sary)		FILING DATE GROUP					
										May 25, 1995 2414					
								U.S. P	ATENT	DOCUMENTS					
EXAMINER INITIAL		DO	OCUN	VEN.	r NU	мві	ΞR	DATE		NAME	SUBCLASS	FILING DATE IF APPROPRIATE			
		\Box		\perp									·		
		\vdash	+	+	\vdash		H								
		H	+	+			\vdash			·				111	
			_	╀									ું જુ		
		\vdash	+	++++							_	-	一五五		
													C.	5 位	
													6	ري. ا ت بس	
				1									د.		
FOREIGN PATENT DOCUMENTS											5.55				
										. •			TRANS	LATION	
		DO	DOCUMENT NUMBER				ER	DATE		COUNTRY	CLASS	SUBCLASS	YES	NO	
		\Box	1	+	T										
		H	+	╁	╁	H									
		\dashv	_	_	_										
										· ·					
	отн	ER	DO	CU	ME	EN ⁻	rs	(Includi	ng Autl	nor, Title, Date	Pertine	nt Pages	, Etc.)		
N X1-1			6)	Ρā	ıul	L.	Ca	arson, "	Imagin	g Factors and	Evaluati	on - Ult	rasoun	d", In	
			Phy	sic	s c	of	Med	dical In	aging:	Recording Sy	stem Mea	surement	s and		
				-						d. Arthur G. H				ion of	
			Phy	sic	cis	ts	in	Medicir	ne, Pub	. American Ins	titute d	of Physic	s, 197	9.	
EXAMII	NER									DATE CONSIDE	RED _,	,			
		Ŧ	HIEN VO							05/27/96					



Sheet _6 ___ of _9 FORM PTO-1449 ATTY. DOCKET NO. SERIAL NO. U.S. DEPARTMENT OF COMMERCE (Rev. 2-32) PATENT AND TRADEMARK OFFICE 08/451,035 APPLICANT Naganathasastrigal Ramanathan INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) FILING DATE **GROUP** May 25, 1995 2414 **U.S. PATENT DOCUMENTS EXAMINER** FILING DATE DOCUMENT NUMBER DATE INITIAL NAME CLASS SUBCLASS IF APPROPRIATE **FOREIGN PATENT DOCUMENTS** TRANSLATION DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS YÈŚ NO 10 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) 7) Albert Goldstein, "Ultrasound Quality Assurance", In Medical NXH Physics of CT and Ultrasound: Tissue Imaging and Characterization, Page 488-513, Ed. Gary D. Fullerton and James A. Zagzebski Medical Physics Monograph No. 6, American Association of VXH Physicists in Medicine, Pub. American Institute of Physics, 1980. **DATE CONSIDERED EXAMINER** VO HIEN 05/27/26



Sheet 7 of 9 **FORM PTO-1449** U.S. DEPARTMENT OF COMMERCE ATTY. DOCKET NO. SERIAL NO. (Rev. 2-32) PATENT AND TRADEMARK OFFICE 08/451,035 APPLICANT Naganathasastrigal Ramanathan INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) FILING DATE **GROUP** May 25, 1995 2414 **U.S. PATENT DOCUMENTS EXAMINER** FILING DATE INITIAL DOCUMENT NUMBER DATE NAME CLASS SUBCLASS IF APPROPRIATE FOREIGN PATENT DOCUMENTS TRANSLATION DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS YES NO OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) 9) Albert Goldstein, "Evaluating Image Quality in High-Res **VXH** Ultrasound", Diagnostic Imaging, Page 89-100, December 1991. 10) Hector Lopez and Stephen W. Smith, "Implementation of a Quality VXH Assurance Program for Ultrasound B-Scanners", HEW Publication (FDA, USA) 80-8100, 25 Pages, 1979. **EXAMINER DATE CONSIDERED** HIEN VO 05/27/26

Sheet	8	of	9	

						1.	4,	70	EMARK			•	Sheet _8	of	_9	
FORM P		49				EP/	٩RT	ME	NT OF CO		ATTY. DOCKET N	SERIAL NO.				
•	·		4 A T	-101	N D	ICC		CLI	.		08/451,035					
		ORI ATE									APPLICANT Naganathasastrigal Ramanathan					
	(Us	e se	vera	al si	hee	ts if	ne	ces	sary)		FILING DATE		GROUP			
											May 25, 1995	5	2414			
									U.S. P	ATENT	DOCUMENTS					
EXAMINER INITIAL		DOCUMENT NUMBER DATE									NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE		
		\vdash			Н											
			\Box												·	
												,				
		-	-		Н	\dashv			•				1			
		\vdash		\dashv	\forall	\dashv										
		_			\dashv											
		<u> </u>	<u> </u>	!	<u> </u>			<u> </u>								
								F	OREIGN	I PATEI	NT DOCUMEN	TS 				
	DOCUMENT NUMBER DATE						- 6	D.4.T.E		COLINITRY CLASS			_	LATION		
				JME	=N I	NU	MBE	=K	DATE		COUNTRY	CLASS	SUBCLASS	YES	NO	
														96		
													€.	MER Ext	語	
														-6	20	
														Fm : 2	T I	
											***************************************			140 140		
<u> </u>	ОТН	ER	D	00	יש	ME	N.	ΓS	(Includi	ng Auth	nor, Title, Date	, Pertine	nt Pages,	÷		
VXH			11	.)	ĸ	. McCarty, "Test Objects for the Assessment of the Performance										
* /\'.			of	D	ia	ano	st	ic	Ultraso	ound Equ	uipment", In Q	uality A	ssurance	in Med	dical	
											nort Meeting S					
			Ph	ıys	ic	s,	Lc	nd	on, 1986	5.						
											·					
EXAMIN	NER		1.1	ترر	 	/	1.	10			DATE CONSIDE	RED				
			HIEN VO								05/27/96					

Sheet _9 ___ of _9 ATTY. DOCKET NO. **FORM PTO-1449** U.S. DEPARTMENT OF COMMERCE SERIAL NO. (Rev. 2-32) PATENT AND TRADEMARK OFFICE 08/451,035 APPLICANT Naganathasastrigal Ramanathan INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) FILING DATE **GROUP** May 25, 1995 2414 **U.S. PATENT DOCUMENTS EXAMINER** FILING DATE INITIAL DOCUMENT NUMBER DATE NAME SUBCLASS IF APPROPRIATE CLASS **FOREIGN PATENT DOCUMENTS** TRANSLATION DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS YES OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) 12) James A. Zagzebski, "Ultrasound Equipment Acceptance Tests", In VXH Medical Physics of CT and Ultrasound: Tissue Imaging and Characterization, Page 514-530, Ed. Gary D. Fullerton and James A. Zagzebski, Medical Physics Monograph No. 6, American Association of Physicists in Medicine, Pub. American Institute of Physics, 1980. **EXAMINER DATE CONSIDERED** VO HIEN 05/27/96